

CLAIMS

1. A composition comprising a mixture of at least one monomer with the formula:



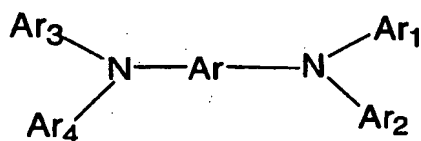
and at least one monomer with the formula:



where monomers of formula (1) are polymerisable with monomers of formula (2), n and m are integers greater than or equal to 2, such that n and m may be the same or different, X is a group containing a terminal thiol, Y is a group containing a reactive unsaturated carbon-carbon bond, each X may be the same or different, each Y may be the same or different, and A and B are molecular fragments such that at least one of A or B is an organic charge-transporting or organic light-emitting fragment.

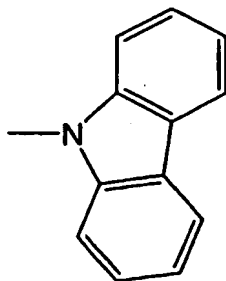
2. A composition according to claim 1, wherein $n + m > 4$.
3. A composition according to any preceding claim, wherein A , B , X , and Y do not contain any carbonyl groups.
4. A composition according to any preceding claim, wherein at least one of A and B is a hole-transporting molecular fragment.
5. A composition according to any one of claims 1 to 3, wherein at least one of A and B is an electron-transporting molecular fragment.
6. A composition according to any one of claims 1 to 3, wherein at least one of A and B is a bipolar-transporting molecular fragment.
7. A composition according to any one of claims 1 to 3, wherein at least one of A and B is a luminescent molecular fragment.

8. A composition according to any preceding claim which also comprises an initiator and/or an emissive dopant and/or a charge transporting dopant.
9. A composition according to any one of claims 1 to 8, wherein A in the monomer of the formula 1 comprises a group of the formula

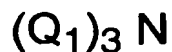


wherein Ar is an optionally-substituted aromatic group and each of Ar₁, Ar₂, Ar₃ and Ar₄ is, independently, an optionally-substituted aromatic or optionally-substituted heteroaromatic group and Ar₁ and Ar₂ and/or Ar₃ and Ar₄ may, optionally, be linked together to form, with the N atom to which they are attached, a N-containing ring, wherein at least two of Ar₁, Ar₂, Ar₃ and Ar₄ are bonded, optionally via a spacer unit, to the group X.

10. A composition according to claim 9, wherein A in the monomer of the formula 1 comprises at least one group of the formula

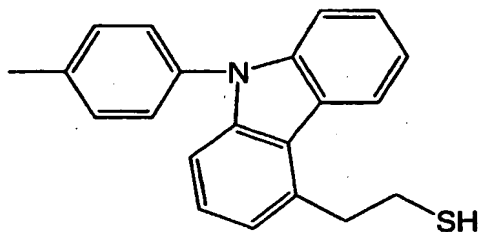


11. A composition according to claim 10, wherein the monomer of the formula I has the formula

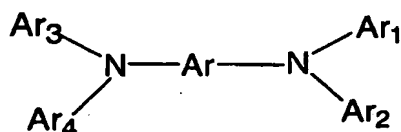


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where Q_1 is

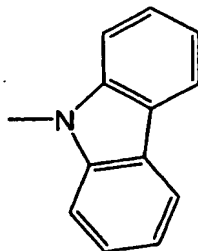


12. A composition according to any one of claims 1 to 11, wherein B in the monomer of the formula 2 comprises a group of the formula

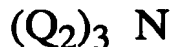


wherein Ar is an optionally-substituted aromatic group and each of Ar_1 , Ar_2 , Ar_3 and Ar_4 is, independently, an optionally-substituted aromatic or optionally-substituted heteroaromatic group and Ar_1 and Ar_2 and/or Ar_3 and Ar_4 may, optionally, be linked together to form, with the N atom to which they are attached, a N-containing ring, wherein at least two of Ar_1 , Ar_2 , Ar_3 and Ar_4 are bonded, optionally via a spacer unit, to the group Y.

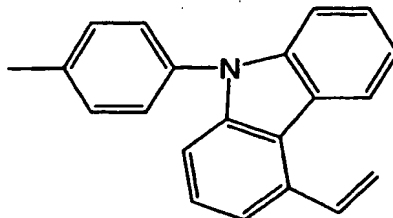
13. A composition according to claim 12, wherein B in the monomer of the formula 2 comprises at least one group of the formula



14. A composition according to claim 13, wherein the monomer of the formula 2 has the formula



wherein Q_2 is



15. A composition according to any one of claims 9, 10, 12 or 13 wherein Ar comprises biphenyl.
16. A solid film comprising a thermally-induced or radiation-induced polymerisation reaction product of a composition according to any one of claims 1 to 15.
17. A solid film comprising a radiation-induced polymerisation reaction product of a composition according to any one of claims 1 to 15 that has a pre-determined pattern.
18. A solid film comprising a polymer with repeat unit

$$-(A-Z-B-W)- \quad (3)$$
 where A and B are as defined above, Z is the addition product of the thiol-containing group, X, and the group containing a reactive unsaturated carbon-carbon bond, Y, and W is the addition product of the group containing a reactive unsaturated carbon-carbon bond, Y and the thiol-containing group, X.
19. An organic light emitting device comprising laminated in sequence a substrate, an electrode, a first optional charge transporting layer, an emissive layer, a second optional charge transporting layer and a counter electrode wherein at least one of the emissive layer, the first optional charge transporting layer or the second optional charge transporting layer is a film according to any one of claims 16 to 18.

20. An organic light emitting device comprising laminated in sequence a substrate, an electrode, a first optional charge transporting layer, an emissive layer, a second optional charge transporting layer and a counter electrode wherein the emissive layer is a film according to any one of claims 16 to 18.
21. A device as in either claim 19 or claim 20, wherein the light emitting layer contains an emissive dopant.
22. A process for forming a device as claimed in any one of claims 19 to 21 that comprises the steps of:
 - i) depositing a film of a composition claimed in any one of claims 1 to 14; and
 - ii) polymerising said composition.
23. A process according to claim 22 wherein at least portions of the film of said composition are exposed to actinic radiation to polymerise the corresponding portions of the film.
24. A process according to claim 23 wherein the film is exposed to actinic radiation through a mask and the film is then developed to remove the unexposed portions of the film.
25. A process for forming a device as claimed in either claim 20 or claim 21 that comprises the steps of:
 - i) depositing a film of a composition claimed in any one of claims 1 to 15 that is capable of emitting light of a first colour;
 - ii) exposing portions of said film to actinic radiation through a mask to polymerise the corresponding portions of the film;
 - iii) removing unexposed portions of said film to leave a pre-determined pattern;

iv) depositing a film of a composition claimed in any one of claims 1 to 15 that is capable of emitting light of a second colour; and

v) exposing portions of said second colour film to actinic radiation through a mask to polymerise the corresponding portions of the film.